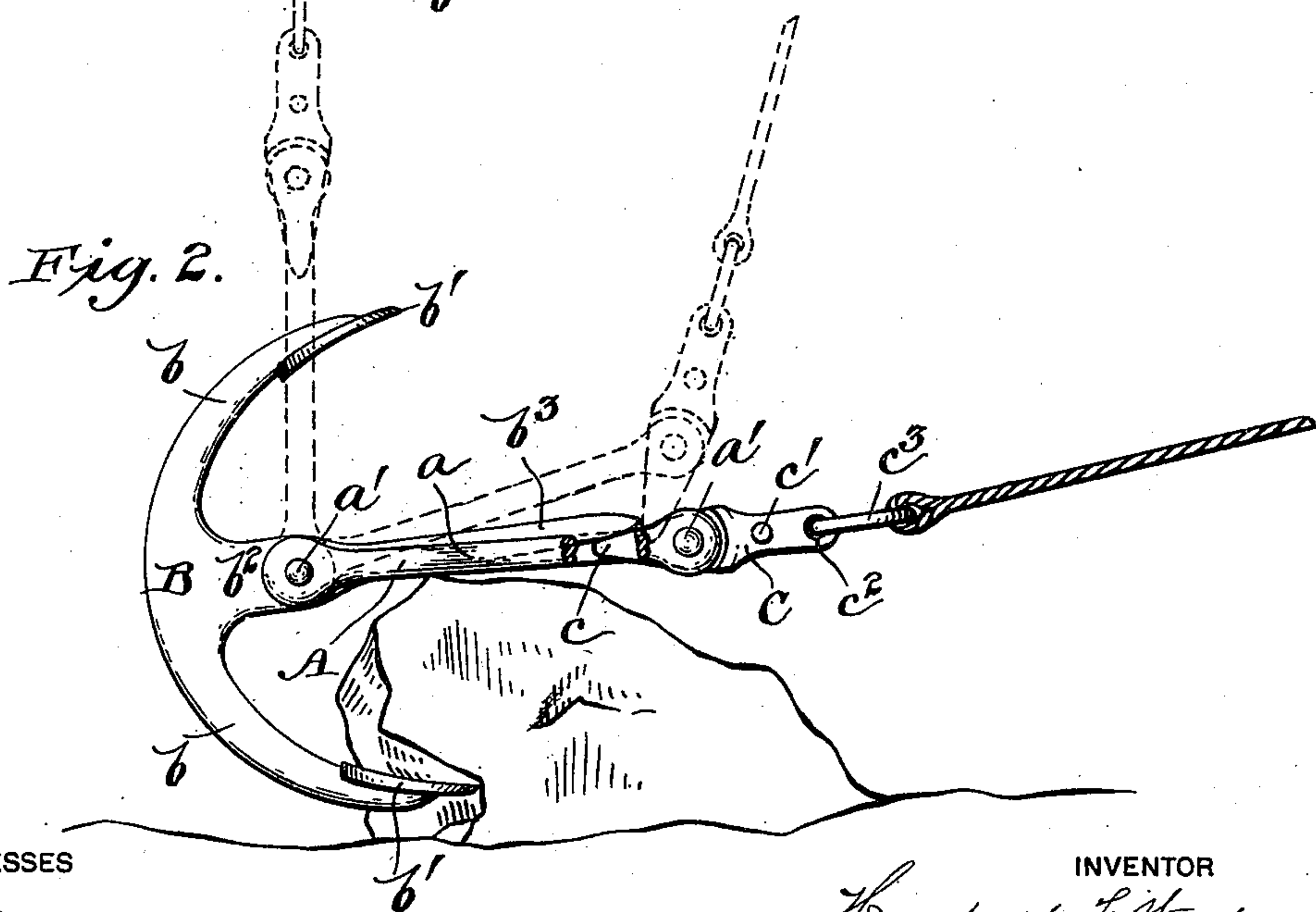
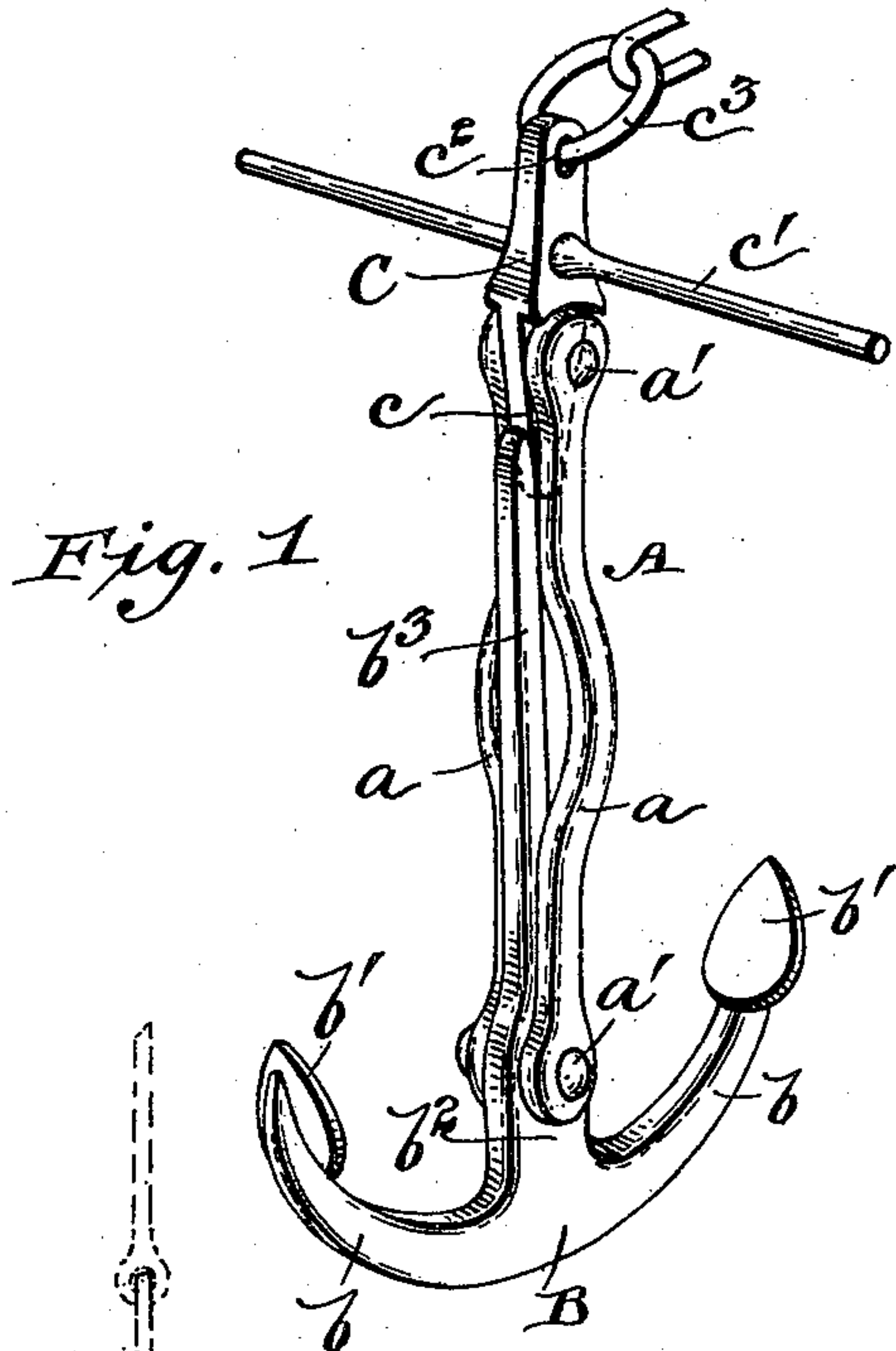


(No Model.)

H. F. WARD.  
ANCHOR.

No. 594,769.

Patented Nov. 30, 1897.



WITNESSES

*Everance*  
*J. R. Clift*

INVENTOR

*Horatio F. Ward*  
*by his atty*  
*Maam, Hemmick and Lawrence*

# UNITED STATES PATENT OFFICE.

HEZEKIAH F. WARD, OF CHURCHTON, MARYLAND, ASSIGNOR OF ONE-HALF TO EMILE A. HARTGE, OF GALLOWAY, MARYLAND.

## ANCHOR.

SPECIFICATION forming part of Letters Patent No. 594,769, dated November 30, 1897.

Application filed December 28, 1896. Serial No. 617,242. (No model.)

*To all whom it may concern:*

Be it known that I, HEZEKIAH F. WARD, a citizen of the United States, residing at Churchton, in the county of Anne Arundel and State of Maryland, have invented certain new and useful Improvements in Anchors; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to improvements in anchors, and has for its object the production of anchors of such a construction that the danger of losing the same when caught or entangled by some submerged object will be reduced to a minimum.

It consists in an anchor having a suitable shank, a crown carrying suitable arms and flukes pivoted in one end of said shank, and a head carrying a stock pivoted in the other end of said shank, and means whereby the flukes are adapted for remaining in a fixed position and can be released and allowed to revolve.

It also consists in an anchor provided with a suitable shank, a crown having suitable arms and flukes pivoted at one end of the shank, a head carrying a suitable stock pivoted at the other end of said shank, and engaging means upon the said crown and head for controlling the action of the anchor.

It also consists in certain other novel constructions, combinations, and arrangements of parts, as will be hereinafter more particularly described and claimed.

In the accompanying drawings, Figure 1 is a perspective view of my improved anchor; and Fig. 2 is a side elevation of the same, different operative positions being indicated in full and dotted lines.

A in the drawings indicates the shank, B the crown, and C the head, of an anchor constructed in accordance with my invention.

The shank A is preferably made in two pieces or links *a a*, secured at their ends by suitable rivets or bolts *a' a'*. The said pieces *a a* are bent or bowed outwardly about centrally of their length to form a wider opening between them at that point for a purpose to be presently described.

The crown B is formed with arms *b b* and flukes *b' b'* of the usual type and is pivoted at its throat or trend *b<sup>2</sup>* between the lower ends of the pieces *a a* of the shank A upon the lower bolt *a'*. The crown B is also provided with an extension or auxiliary shank *b<sup>3</sup>*, which is of the same thickness as the trend *b<sup>2</sup>* and the arms *b b* and therefore capable of passing freely between the pieces *a a* of the shank A. The opening formed by the bowed portion of the shank A is sufficiently wide to permit the passage of the flukes, so that the crown B can make a complete revolution in either direction about its pivot-bolt *a'* between the links *a a*.

The head C is provided with an extension *c*, pivoted upon the upper bolt *a'* of the shank A, said extension being of sufficient length to engage the end of the auxiliary shank *b<sup>3</sup>* and arrest it in its revolution about its pivotal point when the head is in its normal position, as seen in full lines in Figs. 1 and 2. The head C carries a stock *c'* of suitable shape and is provided with an eye *c<sup>2</sup>*, adapted to be engaged by a ring *c<sup>3</sup>*, to which a cable or chain is attached in the usual manner.

It will be noticed that the auxiliary shank *b<sup>3</sup>* is very much longer than the extension *c* of the head C, so that when they engage each other the extension *c* has much the greater leverage upon the auxiliary shank *b<sup>3</sup>* than the said shank has upon the said extension. It will thus be seen that when a strain is put upon the cable and the pull is more or less direct, as shown in Fig. 1 and in full lines in Fig. 2, the extension will engage the auxiliary shank *b<sup>3</sup>* upon one side or the other and hold the arms *b b* and the flukes *b' b'* in operative position, so that they will engage the bottom of the body of water and hold the vessel in the usual manner.

Often it happens, however, that an anchor becomes caught upon something at the bottom of the body of water, from which it cannot be extricated and is lost to the vessel. By my improved construction I provide against such a difficulty. This can be well illustrated by reference to Fig. 2 of the drawings. The anchor is represented as caught under a rock. While the vessel above rides at anchor normally, the strain upon the cable is very much at an angle, as shown in full lines; but when



it is desired to raise the anchor the pull will become more nearly vertical, the head turning on its pivot if the anchor be caught, until finally the extension *c* will become disengaged from the auxiliary shank *b*<sup>3</sup>, as seen in dotted lines, when the crown arms and flukes will be free to rotate upon the pivot and can readily escape the obstruction.

It will be further noticed that in casting anchor no matter in what position it falls it will turn so as to catch and be locked in said position. If it falls so that the end of the auxiliary shank *b*<sup>3</sup> is above the extension *c*, it is in position for immediate engagement; but if it falls with the said shank *b*<sup>3</sup> below the extension *c* it will not hold, but the crown will make a nearly complete revolution until the end of the auxiliary shank engages the extension *c* from above, where it will be held by the same and act as any anchor of the common construction in use. The stock *c'* operates to cause one or the other fluke to engage the bottom of the body of water in the usual manner.

The anchor herein described is of simple and cheap construction, and while fulfilling all the ordinary functions of an anchor has also the capability of freeing itself from all obstructions and thus reduces the chances of loss to a minimum.

Having described my invention, what I claim, and desire to secure by Letters Patent, is—

1. An anchor consisting of parallel bars forming a suitable shank, a crown carrying suitable arms and flukes pivoted at one end of said shank, and a head carrying a stock pivoted at the other end of said shank, and engaging means upon the said crown and head for controlling the action of the anchor, substantially as described.

2. An anchor consisting of a suitable shank, a crown having suitable arms and flukes, pivoted at one end of the shank, a head carrying a suitable stock pivoted at the other end of said shank, and engaging means upon the

said crown and head for controlling the action of the anchor, substantially as described.

3. An anchor consisting of a shank made of two parallel parts suitably secured together, and a head and a crown pivoted between the said parts of the shank, and engaging means upon the said crown and head for controlling the movement of said crown, substantially as described.

4. An anchor consisting of a suitable shank, a head pivoted at one end of said shank, and a crown pivoted at the other end thereof, an auxiliary shank upon said crown, and means upon the said head for engaging said auxiliary shank, whereby the crown is held from rotation upon its pivot, substantially as described.

5. An anchor consisting of a suitable shank, a head pivoted at one end of said shank and a crown pivoted at the other end thereof, an auxiliary shank upon said crown and an extension upon said head for engaging said auxiliary shank and preventing the rotation of the said crown, substantially as described.

6. An anchor consisting of a shank made of two parts, bowed or bent out about centrally of their length, and thereby forming an enlarged space between them, a crown carrying arms and flukes pivoted between said parts of the shank, and the enlarged space providing for the free passage of the said flukes, a head carrying a suitable stock, also pivoted between the parts of said shank, and means whereby the flukes may be held in a fixed position or released therefrom, and engaging means upon the crown and head for preventing the crown from making a revolution when engaging the bottom, to anchor a vessel, substantially as described.

In testimony whereof I hereunto affix my signature in presence of two witnesses.

HEZEKIAH F. WARD.

Witnesses:

A. K. STARLING,  
WILLIAM A. SIMMONS.